



Munich Personal RePEc Archive

Social infrastructure investment: private finance and institutional investors

Inderst, Georg

Inderst advisory

December 2015

Online at <https://mpra.ub.uni-muenchen.de/69504/>

MPRA Paper No. 69504, posted 20 Mar 2016 20:46 UTC

Book contribution: "Investing in Long-Term Europe: Re-launching Fixed, Network and Social Infrastructure", edited by Paolo Garonna and Edoardo Reviglio (FeBAF and CDP), LUISS University Press Rome (2015, forthcoming) - Dedicated to Faust Felli.

Social infrastructure investment: private finance and institutional investors

by Georg Inderst

(updated December 2015)

Only ten years ago, infrastructure investment attracted little interest in Europe and North America. This has changed for the better. The focus of the current debates is primarily on *economic* infrastructure, especially on transport and energy networks. In contrast, *social* infrastructure investment has received surprisingly little attention, at least so far. This should change.

In this article, we make some observations and comments on the private finance of social infrastructure, and the role of pension funds, insurance companies and other institutional investors. In fact, there are some interesting developments in the markets that are often overlooked.

We first sketch the current state of social infrastructure investment, the various sources of finance, transaction volumes and investment activity by institutional investors. Then we discuss some specific characteristics of social infrastructure from an investor perspective, as well as barriers to more investment. Finally, there is a reminder on some conceptual and data issues in this field that need to be worked on. Here we concentrate on "hard" or "physical" infrastructure, being aware, of course, that there are other definitions that cover "soft" factors and "intangible" institutions such as education, health, security or culture (e.g. Otero et al. 2014).¹

Investment in social sectors

Investment in social infrastructure is important to the society. It is also a considerable factor in the economy. Wagenvoort et al. (2010) calculated gross fixed capital investment figures of roughly € 100bn per year in the EU health and education sectors (2006-2009). In other words, social infrastructure investment contributes about 1% to GDP (0.6% in health and 0.4% in education). It constitutes more than a quarter of total infrastructure spending. This is not insignificant.

¹ Example of a definition used in the financial markets: "Social infrastructure can be broadly defined as long-term physical assets that facilitate social services – typically schools, medical facilities, state or council housing and courthouses, among others." Preqin (2014)

There are major differences in the financing source of the two sectors in the national accounts statistics. Investment in education is nearly 90% government financed. Health infrastructure is about two thirds privately financed, mostly by the corporate sector, which is broadly in line with the financing pattern in economic infrastructure.

Furthermore, we learn that *public-private partnerships (PPP)* are about twice as important in social as in economic sectors. Nonetheless, still only 6-7% of social infrastructure investment in Europe runs through PPPs, and this is rather concentrated in a few countries. More analysis on this would be needed, also for other regions.

Social infrastructure spending tends to become more significant in developed economies. According to PWC (2014), 15% of global infrastructure spending is in the health and education sectors, i.e. about US\$ 600bn in 2012. The share of social sectors is about 27% in Europe and 23% in the USA, while the figures is typically around 10% in emerging countries.

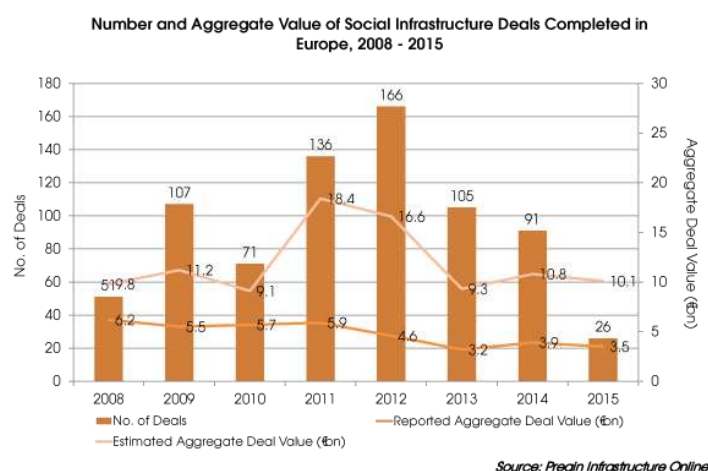
What do we know about the *future investment needs* in social infrastructure? Still very little, it seems. All the major studies in this field, including by the OECD and World Bank, concentrate on economic infrastructure, which is already a difficult task. It also needs to be said that academic research in this field is still in its infancy.

Demographics are important drivers, especially the education of the young, and health and elderly care in ageing societies. Also, the demand for leisure and sports facilities tends to increase with the general well-being.

Transaction volumes

Various commercial data bases record private sector investments and transactions in social infrastructure although, expectedly, they play a relatively small role compared to economic infrastructure. In project finance, e.g., data are often subsumed under “real estate” or “PPP” or “other” transactions.

Figure 1:



Source : Preqin (2015)

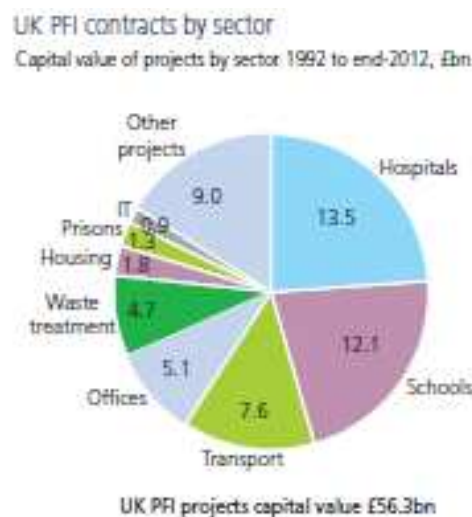
Infrastructure funds have been rising since the 1990 to a volume of over US\$ 300bn. Most of that capital goes into transport, energy and utilities but social infrastructure typically has a weighting of 10-20%. According to data service Preqin (2014), 13% of the global transactions in infrastructure funds since 2008 have been in social sectors.

Interestingly, Europe captured 78% of the 950 social infrastructure deals, with 64% in the UK, against a mere 10% in North America (with some PPPs in US courthouses). In emerging markets, the focus is even more on economic infrastructure (Inderst and Stewart 2014). The European transaction volume - generated by such funds - over the period is US\$ 95bn, i.e. an annual average of about US\$ 12bn (Fig. 1).

Looking further into European PPPs, the overall value has been in the range of € 12-28bn p.a. since the early 2000s (Kappeler 2011, EPEC 2015). This equates to only about 0.1-0.2% of GDP. The annual number of deals ranged between 70 and 140. Transport is by far the strongest sector in terms of volume. However, roughly half of the (typically smaller) deals tend to be in social infrastructure, led by education and healthcare.

About 45% of the European PPP volume since 1990 happened in the UK. The UK Private Finance Initiative (PFI), a form of PPP, reached 732 projects between its start in 1992 and 2012, with an aggregate capital value of £ 56bn. It has indeed a strong focus on social infrastructure, with 24% of the volume in hospitals, 21% in schools, 9% in offices (e.g. fire & police, courts, military, service centers), 3% in housing and 2% in prisons (Fig. 2). However, deal numbers and volumes have been low in recent years.

Figure 2:



Source: TheCityUK (2014)

Institutional investor activity

Institutional investors worldwide have increased their interest in infrastructure in recent years, primarily via *unlisted* infrastructure equity funds. Most such funds invest across a broad range of infrastructure sectors, often including social infrastructure. In

addition, there are a few specialist funds on the market that concentrate on social projects, e.g. in New Zealand, Australia, UK and the Netherlands.

Investors traditionally have even larger investments in equity and bonds of *listed* infrastructure companies, such as energy, water and telecom utilities. However, social infrastructure plays only a very marginal role on the stock markets. Exceptions are some *listed* infrastructure trusts or closed-end funds on the London and Sydney stock markets, such as John Laing Infrastructure Fund or HICL Infrastructure Company, that have heavy weightings in PPPs and other social infrastructure.

Infrastructure *debt* investing has been taking off in Europe over the last 2-3 years. Generally, social infrastructure is a small fraction of *project bonds*. However, there is considerable experience with insurance companies investing in PPP bonds in Canada (Inderst and Della Croce 2013). Wrapped PFI bonds were used in the UK until the financial crisis. Project bond markets are now recovering in Europe. Some instruments have been structured for student accommodation and social housing over the last two years, and there is probably more to come in this field.

Some of the larger pension funds, led by Canada, have started to invest *directly* in infrastructure. A number of Dutch, Nordic, German, French and other pension funds are already venturing not only into schools and hospitals but also government buildings, social housing, care homes, student accommodation etc. Pension fund investment platforms, such as the UK PIP, will also extend such activity.

Insurance companies in particular are increasingly searching yield via direct *infrastructure loans*. Also some Sovereign Wealth Funds have social investments in their remit. Overall, Preqin reports that 16% of direct infrastructure deals happen in social infrastructure.

There are also other financing developments such as *Social Impact Bonds (SIB)*, as launched in the UK, USA and other countries.² A number of foundations, charitable trusts and pension funds (such as the Great Manchester Pension Fund and the Merseyside Pension Fund) have taken an interest in SIBs, alongside venture capitalists and other investors.

In a nutshell, there is already some private investment experience in this market. However, institutional asset allocation to infrastructure is still only 1-2% on average globally and in Europe. With social infrastructure taking 10-20% of that, we are still talking about small "social" exposures. There is potential for more.

² A Social Impact Bond is a contract with the public sector in which a commitment is made to pay for improved social outcomes that result in public sector savings. They have been used to tackle entrenched social problems such as short term offenders and youth at risk.

Specific characteristics of social infrastructure

Asset owners also need to become more accustomed to social infrastructure investments. There are some specific characteristics, some of them more favourable to investors than others.

Size: Projects in health, education and other social logistics are comparatively small. The average deal size of EU social infrastructure fluctuates between US\$ 100-200m; the median PFI project value is less than £ 50m. For large investors, they are often not worth spending their time on, as they keep competing for large, brownfield economic assets such as airports and utility networks.

Funding: The cash flow comes mostly from longer-term availability payments by the public sector. Some investors prefer such steady income streams to the user fee assets, where the consumer demand can be very volatile, e.g. with toll roads.

Risk and return: The contractual arrangements of social PPPs are often seen as relatively "low risk" by investors, with return projections in the single digits. However, they are typically highly leveraged which can be yield surprises in difficult times. UK PFI assets have shown overall good risk-adjusted performance in the past but the environment has changed.

Portfolio diversification: Social infrastructure assets often show low correlation to other assets. There is also much less concentration risk than having a few large economic infrastructure assets in your portfolio.

Inflation-protection: Cash flows of social PPPs are often inflation-indexed which is useful for investors seeking "real assets" to match liabilities that are linked to inflation.

Investment vehicles: In infrastructure funds, social infrastructure is typically mixed with other sectors, although there are a few specialist products on the market. Smaller investors in particular would need more well-diversified (and cheap) funds.

Operational issues: Poor service quality and inefficiencies seem to be notorious in these sectors. Therefore, good contracts and management are paramount.

Regulatory, political and social risk: There is always an element of political risk, as change of regulation and renegotiations are not uncommon in this field. There is also "social risk" and "reputational risk" if a project is opposed by pressure groups or the media.

Risk-sharing: It is not easy to find the right and fair risk-sharing arrangements, and circumstances can change (Blanc-Brude 2012). In the UK, for example, PFI was criticized for being too expensive, too opaque, too slow and too inflexible.

According to critics, the private sector could make windfall gains while the risk transfer and future liabilities for the public sector were unclear.³

The UK government introduced a reformed version in 2012. PF2 tries to address the criticisms with a number of changes, including a public equity stake, faster procurement times, easier renegotiations and more transparency. Uptake has been slow so far.

Project pipeline: Investors increasingly bemoan the lack of a consistent supply of investable infrastructure projects. This is particularly true for social projects.

Overall, social infrastructure projects can have some interesting characteristics for investors but can also be small and fiddly, and necessitate cost-effective investment vehicles. Consistent infrastructure policies with a clear regulatory framework, good public governance and an adequate project pipeline are essential.

Conceptual and data issues

There are major definitional and data issues in the infrastructure investment discussion. Very different concepts (e.g. economic, sectoral, contractual, regulatory, investment characteristics) are being used in the political, financial and academic world, and there are a lot of grey and controversial areas (Inderst 2013).

Public infrastructure normally has a connotation to large physical structures in the economy with a network and/or monopolistic element. But many social infrastructure assets, such as accommodation for students or the elderly, are very similar to (smaller, private) real estate assets. Some funds even contain football stadiums, leisure parks, casinos and other entertainment facilities. This may help increase the investment universe but the question remains how far it can be stretched, especially when fiscal incentives and regulatory exemptions are involved.

Finally, infrastructure statistics need to be interpreted very carefully. Unfortunately, the data that is scattered around many places (e.g. national accounts, financial transactions, investment fund tables, investor allocation data and surveys). Private data sources can be expensive and not very transparent. National and international organizations could do a lot of “public good” by improving the statistical information, especially in social sectors.

Conclusion

Investment in social infrastructure – whichever way defined – is important to the society and the economy. However, surprisingly little is known even about “the hardware” of social infrastructure, and even less so about future investment needs.

³ Vecchi et al. (2013) analysed the cost-efficiency of PFI projects in the UK health sector. Expected returns by the private sector far exceed the underlying cost of capital (by 9%), despite the ‘low risk’ nature of availability-based payments by the public sector.

Private finance in social infrastructure plays a significant role in Europe, in some places more than in others. Nonetheless, there is much room for further development of PPPs and other forms of private participation.

Some institutional investors have become active in social infrastructure but overall volumes are still very small. This is unlikely to change much, as long as the supply of investable social projects and appropriate vehicles is so slow.

Politicians like to announce new infrastructure mega-projects. Social projects are also often under the radar of large investors who focus on large-tickets assets in economic sectors. Governments should work out proper national (and regional) infrastructure plans – including social infrastructure.

References

- Blanc-Brude, F. (2012), Pension Fund Investment in Social Infrastructure. Edhec-Risk Institute.
- EPEC (2015), Review of the European PPP Market 2014 (and earlier annual editions).
- Inderst, G. (2009), Pension Fund Investment in Infrastructure. OECD Working Paper on Insurance and Private Pensions, No. 32.
- Inderst, G. (2013), Private Infrastructure Finance and Investment in Europe. EIB Working Papers, 2013, No. 2.
- Inderst, G. and Della Croce, R. (2013), Pension Fund Investment in Infrastructure: a Comparison between Australia and Canada. OECD Working Papers on Finance, Insurance and Private Pensions, No. 32.
- Inderst, G. and Stewart, F. (2014), Institutional Investment in Infrastructure in Emerging Markets and Developing Economies. PPIAF, World Bank Group, 2014.
- Kappeler, A. (2011), Recent trends in the PPP market in Europe: slow recovery and increasing EIB involvement. EIB ECON Note, October 2011.
- Otero, A., Watson, J., Felli, F. (2014), The unexplained business within social infrastructure. Integrate, Briefing Paper, No. 1.
- Preqin (2014), Global Social Infrastructure Deal Flow. November 2014.
- Preqin (2015), Social Infrastructure Investment: A European Focus. June 2015
- PWC (2014). Capital project and infrastructure spending. Outlook to 2015. Researched by Oxford Economics.
- TheCityUK (2014), Infrastructure 2014. Financial Market Series.
- Vecchi, V., Hellowell, M. and Gatti, S. (2013), Does the private sector receive an excessive return from investments in health care infrastructure projects? Evidence from the UK, Health Policy, 110-2, pp. 243-270.
- Wagenvoort, R., De Nicola, C. and Kappeler, A. (2010), Infrastructure Finance in Europe: Composition, Evolution and Crisis Impact. EIB Papers, Vol. 15, No. 1.